

JAmroz 9D4

TECH CENTER 1600/2900

SEP 27 2001

RECEIVED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/614,483

DATE: 07/17/2001

TIME: 09:23:09

Input Set : A:\415072000110.txt

Output Set: N:\CRF3\07172001\I614483.raw

#7 1/2

ENTERED

```

4 <110> APPLICANT: Mather, Jennie P.
5     Bald, Laura N.
6     Roberts, Penelope E.
7     Stephan, Jean-Philippe F.
9 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR GENERATING
10     MONOCLONAL ANTIBODIES REPRESENTATIVE OF A SPECIFIC CELL TYPE
13 <130> FILE REFERENCE: 415072000110
15 <140> CURRENT APPLICATION NUMBER: 09/614,483
16 <141> CURRENT FILING DATE: 2000-07-10
18 <150> PRIOR APPLICATION NUMBER: 09/218,539
19 <151> PRIOR FILING DATE: 1998-12-22
21 <160> NUMBER OF SEQ ID NOS: 8
23 <170> SOFTWARE: FastSEQ for Windows Version 3.0
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 2181
27 <212> TYPE: DNA
28 <213> ORGANISM: Rattus rattus
30 <220> FEATURE:
31 <221> NAME/KEY: sig_peptide
32 <222> LOCATION: (0)...(454)
34 <221> NAME/KEY: CDS
35 <222> LOCATION: (454)...(2181)
37 <400> SEQUENCE: 1
38   cac ctc ggt tct atc gat tcg aat tcg gcc aca ctg gcc gga tcc tct      48
39   His Leu Gly Ser Ile Asp Ser Asn Ser Ala Thr Leu Ala Gly Ser Ser
40     -150                      -145                      -140
42   aga gat ccc tcg acc tcg acc cac gcg tcc gcc ttg ctc ttc tta tcc      96
43   Arg Asp Pro Ser Thr Ser Thr His Ala Ser Ala Leu Leu Phe Leu Ser
44   -135                      -130                      -125                      -120
46   tct cct ttg caa gaa gag aaa ctc ctc gga gac agc agc caa aaa gaa      144
47   Ser Pro Leu Gln Glu Glu Lys Leu Leu Gly Asp Ser Ser Gln Lys Glu
48     -115                      -110                      -105
50   acc gcg tct acc ttg aca gac tac tga agc gtc tcc tgg aat aag agg      192
51   Thr Ala Ser Thr Leu Thr Asp Tyr * Ser Val Ser Trp Asn Lys Arg
52     -100                      -95                      -90
54   gtc gcc cgc ctt ggg agt agc agc caa aga cgc tga ggg agg gtg tgg      240
55   Val Ala Arg Leu Gly Ser Ser Ser Gln Arg Arg * Gly Arg Val Trp
56     -85                      -80                      -75
58   agg ggg gag gga gga gtt gcg ggt tcc gcg tgg agg aaa gtt gcg tgt      288
59   Arg Gly Glu Gly Gly Val Ala Gly Ser Ala Trp Arg Lys Val Ala Cys
60     -70                      -65                      -60
62   ggc aca gac ccg acg gcg cag cgc cac agc gcc cgg ggg atc gtg tgt      336
63   Gly Thr Asp Pro Thr Ala Gln Arg His Ser Ala Arg Gly Ile Val Cys
64     -55                      -50                      -45
66   ctt gga aaa aaa agt cgc tgt ccc cct aaa gcg aga ccc aca agc gag      384
67   Leu Gly Lys Lys Ser Arg Cys Pro Pro Lys Ala Arg Pro Thr Ser Glu
68     -40                      -35                      -30

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/614,483

DATE: 07/17/2001

TIME: 09:23:09

Input Set : A:\415072000110.txt

Output Set: N:\CRF3\07172001\I614483.raw

70	cgg gcc ccg tgg gcc cgg gga cga cgc ccc ctc ctg cgg cgt gga ctt	432
71	Arg Ala Pro Trp Ala Arg Gly Arg Arg Pro Leu Leu Arg Arg Gly Leu	
72	-25 -20 -15 -10	
74	tgt cgg tgg cct tct agg agg agg aat atg gca tct aaa ggg tcc cct	480
75	Cys Arg Trp Pro Ser Arg Arg Arg Asn Met Ala Ser Lys Gly Ser Pro	
76	-5 1 5	
78	tct tgc cgt ctg gtt ttc tgc ctc ttg atc tcc gcc gcg gtc ctc aga	528
79	Ser Cys Arg Leu Val Phe Cys Leu Leu Ile Ser Ala Ala Val Leu Arg	
80	10 15 20	
82	cca ggc ctc gga tgg tac act gtc aac tca gca tac gga gat acc att	576
83	Pro Gly Leu Gly Trp Tyr Thr Val Asn Ser Ala Tyr Gly Asp Thr Ile	
84	25 30 35	
86	gtc atg cct tgc aga ctg gat gta cct cag aac ctc atg ttt ggc aaa	624
87	Val Met Pro Cys Arg Leu Asp Val Pro Gln Asn Leu Met Phe Gly Lys	
88	40 45 50 55	
90	tgg aaa tat gaa aag cct gat ggg tcc cca gta ttt att gca ttc aga	672
91	Trp Lys Tyr Glu Lys Pro Asp Gly Ser Pro Val Phe Ile Ala Phe Arg	
92	60 65 70	
94	tct tct aca aag aaa agt gtg cag tat gat gat gta cca gag tac aag	720
95	Ser Ser Thr Lys Lys Ser Val Gln Tyr Asp Asp Val Pro Glu Tyr Lys	
96	75 80 85	
98	gac aga ctg agc ctc tca gaa aac tac act ctg tct atc aac aat gca	768
99	Asp Arg Leu Ser Leu Ser Glu Asn Tyr Thr Leu Ser Ile Asn Asn Ala	
100	90 95 100	
102	aag atc agt gac gaa aag aga ttt gtg tgc atg cta gtg acc gag gac	816
103	Lys Ile Ser Asp Glu Lys Arg Phe Val Cys Met Leu Val Thr Glu Asp	
104	105 110 115	
106	aac gtg ttt gag gca cct acc ctg gtc aag gtg ttc aag caa cca tct	864
107	Asn Val Phe Glu Ala Pro Thr Leu Val Lys Val Phe Lys Gln Pro Ser	
108	120 125 130 135	
110	aaa cct gaa att gta aac aga gca gcg ttt ctt gaa aca gag cag cta	912
111	Lys Pro Glu Ile Val Asn Arg Ala Ala Phe Leu Glu Thr Glu Gln Leu	
112	140 145 150	
114	aaa aag tta ggt gac tgc att tca aga gac agt tac cca gac ggc aac	960
115	Lys Lys Leu Gly Asp Cys Ile Ser Arg Asp Ser Tyr Pro Asp Gly Asn	
116	155 160 165	
118	atc acg tgg tat agg aat ggg aaa gtg cta cag cct gtt gat gga gag	1008
119	Ile Thr Trp Tyr Arg Asn Gly Lys Val Leu Gln Pro Val Asp Gly Glu	
120	170 175 180	
122	gtg tcc ata ctt ttt aaa aag gaa att gat cca ggt act cag ttg tat	1056
123	Val Ser Ile Leu Phe Lys Lys Glu Ile Asp Pro Gly Thr Gln Leu Tyr	
124	185 190 195	
126	acc atg act tcc tcc ttg gag tac aag aca acc aag tct gac ata caa	1104
127	Thr Met Thr Ser Ser Leu Glu Tyr Lys Thr Thr Lys Ser Asp Ile Gln	
128	200 205 210 215	
130	atg cca ttc acc tgt tct gtg aca tat tat gga cct tcg ggc cag aaa	1152
131	Met Pro Phe Thr Cys Ser Val Thr Tyr Tyr Gly Pro Ser Gly Gln Lys	
132	220 225 230	
134	aca att tat tct gaa caa gca atc ttt gat att tac tat cct aca gag	1200

DATE: 07/17/2001

Input Set : A:\415072000110.txt

Output Set: N:\CRF3\07172001\I614483.raw

135	Thr	Ile	Tyr	Ser	Glu	Gln	Ala	Ile	Phe	Asp	Ile	Tyr	Tyr	Pro	Thr	Glu	
136				235					240					245			
138	cag	gtg	aca	ata	caa	gta	ctg	cca	cca	aaa	aat	gcc	atc	aaa	gaa	ggg	1248
139	Gln	Val	Thr	Ile	Gln	Val	Leu	Pro	Pro	Lys	Asn	Ala	Ile	Lys	Glu	Gly	
140			250					255					260				
142	gac	aac	atc	acc	ctt	cag	tgc	ttg	ggg	aat	ggc	aac	cca	cct	cct	gag	1296
143	Asp	Asn	Ile	Thr	Leu	Gln	Cys	Leu	Gly	Asn	Gly	Asn	Pro	Pro	Pro	Glu	
144		265					270					275					
146	gag	ttc	atg	ttt	tac	tta	cca	ggg	cag	gct	gaa	ggc	ata	aga	agc	tca	1344
147	Glu	Phe	Met	Phe	Tyr	Leu	Pro	Gly	Gln	Ala	Glu	Gly	Ile	Arg	Ser	Ser	
148	280					285					290					295	
150	aac	act	tac	aca	ctg	aca	gac	gtg	aga	cgc	aat	gcc	acc	ggg	gac	tac	1392
151	Asn	Thr	Tyr	Thr	Leu	Thr	Asp	Val	Arg	Arg	Asn	Ala	Thr	Gly	Asp	Tyr	
152				300						305					310		
154	aaa	tgt	tct	ctc	atc	gac	caa	aga	aac	atg	gca	gct	tca	aca	acc	atc	1440
155	Lys	Cys	Ser	Leu	Ile	Asp	Gln	Arg	Asn	Met	Ala	Ala	Ser	Thr	Thr	Ile	
156				315					320					325			
158	act	gtt	cac	tac	ttg	gat	tta	tcc	tta	aac	cca	agt	ggg	gaa	gtg	acc	1488
159	Thr	Val	His	Tyr	Leu	Asp	Leu	Ser	Leu	Asn	Pro	Ser	Gly	Glu	Val	Thr	
160			330					335					340				
162	aag	cag	atc	ggg	gat	acc	ctg	cct	gtg	tct	tgc	aca	ata	tct	gca	agt	1536
163	Lys	Gln	Ile	Gly	Asp	Thr	Leu	Pro	Val	Ser	Cys	Thr	Ile	Ser	Ala	Ser	
164		345					350					355					
166	agg	aat	gca	act	gtg	gtg	tgg	atg	aag	gat	aac	atc	agg	ctc	cga	tct	1584
167	Arg	Asn	Ala	Thr	Val	Val	Trp	Met	Lys	Asp	Asn	Ile	Arg	Leu	Arg	Ser	
168	360					365					370					375	
170	agt	cca	tcc	ttt	tot	agt	ctt	cat	tat	cag	gat	gct	ggg	aac	tat	gtc	1632
171	Ser	Pro	Ser	Phe	Ser	Ser	Leu	His	Tyr	Gln	Asp	Ala	Gly	Asn	Tyr	Val	
172				380						385					390		
174	tgt	gaa	act	gct	ctt	cag	gag	gtt	gag	gga	ctg	aag	aaa	agg	gag	tcg	1680
175	Cys	Glu	Thr	Ala	Leu	Gln	Glu	Val	Glu	Gly	Leu	Lys	Lys	Arg	Glu	Ser	
176				395					400					405			
178	ctg	acc	ctc	atc	gta	gaa	gga	aaa	cct	caa	atc	aaa	atg	aca	aag	aaa	1728
179	Leu	Thr	Leu	Ile	Val	Glu	Gly	Lys	Pro	Gln	Ile	Lys	Met	Thr	Lys	Lys	
180			410					415					420				
182	act	gat	ccc	agt	gga	ctg	tct	aag	act	ata	atc	tgc	cat	gtg	gaa	ggg	1776
183	Thr	Asp	Pro	Ser	Gly	Leu	Ser	Lys	Thr	Ile	Ile	Cys	His	Val	Glu	Gly	

## RAW SEQUENCE LISTING

DATE: 07/17/2001

PRESENT APPLICATION: 05/05/01/7463

PIRTE: 05/05/01/7463

Input Set : A:\415072000110.txt

Output Set: N:\CRF3\07172001\I614483.raw

```
200          490          495          500
202 agt att cca gaa cac gat gag gca gac gat ata agt gat gaa aat aga      2016
203 Ser Ile Pro Glu His Asp Glu Ala Asp Asp Ile Ser Asp Glu Asn Arg
204          505          510          515
206 gaa aag gtg aat gac cag gcc aaa cta att gtg ggc att gtg gtt ggt      2064
207 Glu Lys Val Asn Asp Gln Ala Lys Leu Ile Val Gly Ile Val Val Gly
208 520          525          530          535
210 ctc ctc ctc gcc gcc ctc gtc gcc ggt gtc gtc tac tgg ctg tac atg      2112
211 Leu Leu Leu Ala Ala Leu Val Ala Gly Val Val Tyr Trp Leu Tyr Met
212          540          545          550
214 aag aaa tcg aaa act gca tca aaa cat gca aaa aaa aaa aaa aaa aaa      2160
215 Lys Lys Ser Lys Thr Ala Ser Lys His Ala Lys Lys Lys Lys Lys Lys
216          555          560          565
218 aaa aaa aag ggc ggc cgc gac      2181
219 Lys Lys Lys Gly Gly Arg Asp
220          570
223 <210> SEQ ID NO: 2
224 <211> LENGTH: 725
225 <212> TYPE: PRT
226 <213> ORGANISM: Rattus rattus
228 <220> FEATURE:
229 <221> NAME/KEY: SIGNAL
230 <222> LOCATION: (1)...(152)
232 <400> SEQUENCE: 2
233 His Leu Gly Ser Ile Asp Ser Asn Ser Ala Thr Leu Ala Gly Ser Ser
234          -150          -145          -140
235 Arg Asp Pro Ser Thr Ser Thr His Ala Ser Ala Leu Leu Phe Leu Ser
236          -135          -130          -125
237 Ser Pro Leu Gln Glu Glu Lys Leu Leu Gly Asp Ser Ser Gln Lys Glu
238          -120          -115          -110          -105
239 Thr Ala Ser Thr Leu Thr Asp Tyr Ser Val Ser Trp Asn Lys Arg Val
240          -100          -95          -90
241 Ala Arg Leu Gly Ser Ser Ser Gln Arg Arg Gly Arg Val Trp Arg Gly
242          -85          -80          -75
243 Glu Gly Gly Val Ala Gly Ser Ala Trp Arg Lys Val Ala Cys Gly Thr
244          -70          -65          -60
245 Asp Pro Thr Ala Gln Arg His Ser Ala Arg Gly Ile Val Cys Leu Gly
246          -55          -50          -45
247 Lys Lys Ser Arg Cys Pro Pro Lys Ala Arg Pro Thr Ser Glu Arg Ala
248          -40          -35          -30          -25
249 Pro Trp Ala Arg Gly Arg Arg Pro Leu Leu Arg Arg Gly Leu Cys Arg
250          -20          -15          -10
251 Trp Pro Ser Arg Arg Arg Asn Met Ala Ser Lys Gly Ser Pro Ser Cys
252          -5          1          5
253 Arg Leu Val Phe Cys Leu Leu Ile Ser Ala Ala Val Leu Arg Pro Gly
254          10          15          20
255 Leu Gly Trp Tyr Thr Val Asn Ser Ala Tyr Gly Asp Thr Ile Val Met
256          25          30          35          40
257 Pro Cys Arg Leu Asp Val Pro Gln Asn Leu Met Phe Gly Lys Trp Lys
```

## RAW SEQUENCE LISTING

DATE: 07/17/2001

PATENT APPLICATION: 08/09/0147403

Input Set : A:\415072000110.txt

Output Set: N:\CRF3\07172001\I614483.raw

```
258          45          50          55
259 Tyr Glu Lys Pro Asp Gly Ser Pro Val Phe Ile Ala Phe Arg Ser Ser
260          60          65          70
261 Thr Lys Lys Ser Val Gln Tyr Asp Asp Val Pro Glu Tyr Lys Asp Arg
262          75          80          85
263 Leu Ser Leu Ser Glu Asn Tyr Thr Leu Ser Ile Asn Asn Ala Lys Ile
264          90          95          100
265 Ser Asp Glu Lys Arg Phe Val Cys Met Leu Val Thr Glu Asp Asn Val
266 105          110          115          120
267 Phe Glu Ala Pro Thr Leu Val Lys Val Phe Lys Gln Pro Ser Lys Pro
268          125          130          135
269 Glu Ile Val Asn Arg Ala Ala Phe Leu Glu Thr Glu Gln Leu Lys Lys
270          140          145          150
271 Leu Gly Asp Cys Ile Ser Arg Asp Ser Tyr Pro Asp Gly Asn Ile Thr
272          155          160          165
273 Trp Tyr Arg Asn Gly Lys Val Leu Gln Pro Val Asp Gly Glu Val Ser
274          170          175          180
275 Ile Leu Phe Lys Lys Glu Ile Asp Pro Gly Thr Gln Leu Tyr Thr Met
276 185          190          195          200
277 Thr Ser Ser Leu Glu Tyr Lys Thr Thr Lys Ser Asp Ile Gln Met Pro
278          205          210          215
279 Phe Thr Cys Ser Val Thr Tyr Tyr Gly Pro Ser Gly Gln Lys Thr Ile
280          220          225          230
281 Tyr Ser Glu Gln Ala Ile Phe Asp Ile Tyr Tyr Pro Thr Glu Gln Val
282          235          240          245
283 Thr Ile Gln Val Leu Pro Pro Lys Asn Ala Ile Lys Glu Gly Asp Asn
284          250          255          260
285 Ile Thr Leu Gln Cys Leu Gly Asn Gly Asn Pro Pro Glu Glu Phe
286 265          270          275          280
287 Met Phe Tyr Leu Pro Gly Gln Ala Glu Gly Ile Arg Ser Ser Asn Thr
288          285          290          295
289 Tyr Thr Leu Thr Asp Val Arg Arg Asn Ala Thr Gly Asp Tyr Lys Cys
290          300          305          310
291 Ser Leu Ile Asp Gln Arg Asn Met Ala Ala Ser Thr Thr Ile Thr Val
292          315          320          325
293 His Tyr Leu Asp Leu Ser Leu Asn Pro Ser Gly Glu Val Thr Lys Gln
294          330          335          340
295 Ile Gly Asp Thr Leu Pro Val Ser Cys Thr Ile Ser Ala Ser Arg Asn
296          345          350          355          360
297 Ala Thr Val Val Trp Met Lys Asp Asn Ile Arg Leu Arg Ser Ser Pro
298          365          370          375
299 Ser Phe Ser Ser Leu His Tyr Gln Asp Ala Gly Asn Tyr Val Cys Glu
300          380          385          390
301 Thr Ala Leu Gln Glu Val Glu Gly Leu Lys Lys Arg Glu Ser Leu Thr
302          395          400          405
303 Leu Ile Val Glu Gly Lys Pro Gln Ile Lys Met Thr Lys Lys Thr Asp
304          410          415          420
305 Pro Ser Gly Leu Ser Lys Thr Ile Ile Cys His Val Glu Gly Phe Pro
306          425          430          435          440
```

VERIFICATION SUMMARY

DATE: 07/17/2001

Input Set : A:\415072000110.txt

Output Set: N:\CRF3\07172001\I614483.raw